10-6-2016

Who Have You Been Kissing? (Oral Lesions)

Jed Grant
University of the Pacific, jgrant@pacific.edu

Who Have You Been Kissing?

Jed Grant, MPAS, PA-C
University of the Pacific
Mercy San Juan Medical Center
Sacramento, CA

oral lesions

Objectives

- Recognize common and concerning oral lesions
- Describe prevention of oral cancers through education and vaccination
- Develop appropriate treatment or referral plans for common and concerning oral lesions

What is this?

1. "O" sign
2. Angular Cheilitis
3. Thrush/Oral Candidiasis
4. Scleroderma

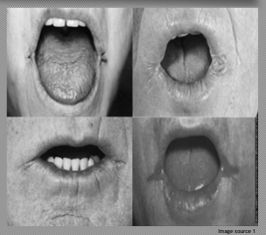

Image source 1

Angular Cheilitis

- Common in those with dentures, drooling and wearing masks
- Redness, and burning sensation at corners of mouth
- Several causes: bacterial (masks), fungal (dentures), inflammatory, allergic, vitamin deficiency (B, Fe), HIV or DM. Controversial.
- Examine mouth carefully to look for other lesions
- May swab lesions or culture oral rinse
- Labs looking for DM and anemia (micro and macrocytic) if refractory or recurrent
- Treatment depends on cause
  - Mupirocin, fluconazole or ketoconazole, iron, diet, proper denture fitting, and good oral hygiene.

What is this?

1. Angular Chelitis
2. Dehydration
3. Oral Candidiasis
4. Geographic Tongue

Image source 2

Oral Candidiasis

- Dentures, Debilitated, DM, local or systemic immune compromise
- Loosely adherent white pseudomembrane with red erosive lesion underneath. May also have red spot in center of tongue or angular chelitis.
- Can do wet mount or KOH prep if dx in question
- Nystatin works well but must be in contact with organism to work
- Fluconazole, ketoconazole, others for 7 days. Minimal resistance.
- Gentian Violet (not to be swallowed)

Gentian Violet

Image source 20, 21

What is this?

1. Lichen Planus
2. Hand-foot-mouth disease (coxsackie virus)
3. Koplik spots (measles)
4. Thrush with scabies

Image source 3 and 4

Oral Lichen Planus (OLP)

- 1-2% of population, slight female predominance, more common after age 40
- T cell ($CD8^+$) mediated auto-immune response triggering apoptosis of oral epithelial cells
- Usually white striations, papules, or plaques (Wickham's striae), but may be have erythematous or erosive lesions which are painful.
- 44% of OLP will have skin lesions, while 70% of Cutaneous Lichen Planus (CLP) patients will have OLP.

Erosive OLP

Image source 22

Oral Lichen Planus (OLP)

- May be triggered by medications or hypersensitivity
  - NSAIDS, B-blockers, ACE-I, anti-malarials
  - Dental amalgam (restoration)
  - Toothpaste flavoring, especially cinnamon
  - Touch or abrasion (Koebner phenomenon)
  - Stress and anxiety
- May be some association with Hep C and liver disease in southern Europeans and Japanese populations
- Usually a clinical diagnosis (check for CLP) but biopsy will confirm.

Oral Lichen Planus (OLP)

- Treatment
  - Nothing is curative, endpoint is to control painful lesions.
  - Removal of causative agents and exacerbating factors
  - Slight increased risk of SCC: Stop tobacco, limit ETOH
  - Topical steroids, reduce stress and anxiety
    - May use topical low/mid/high potency gel, cream, or ointment, with or without Orabase, or direct betamethasone MDI 50mcg toward lesions.
- Prognosis
  - While cutaneous LP usually resolves in 2 years, OLP persists for many years
  - Erosive and erythematous lesions wax and wane
  - Slight increased risk of SCC, but generally excellent prognosis

What is this?

1. Venous Lake
2. Mucocele
3. Abscess
4. Pyogenic granuloma

Image source 5,6,7

Mucocele

- About 2.4 cases per 1000 people, more common in those with OLP
- Painless swelling lasting 3-6 weeks that may fluctuate in size and rupture leaving a shallow ulceration that heals within a few days and may recur
- Pseudocyst due to trauma or obstruction of outflow from salivary gland with secondary mucin spillage into tissues
- Usually no treatment is necessary, though steroid and γ-linolenic acid (oil of evening primrose) will usually resolve lesions which may return when treatment is discontinued.
- Excision, cryotherapy, and laser vaporization are treatment options for recurrent lesions.
- For larger recurrent lesions surgical resection or marsupialization is an option.

What is this?

1. Mumps
2. Sialadenitis
3. Mucocele
4. Ranula

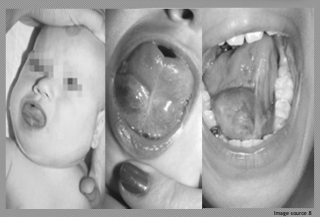

Image source 8

Ranula

- Essentially a mucocele (pseudocyst) involving the floor of the mouth and sub-lingual salivary gland
- 2 types: oral or cervical/plunging. Cervical has same origin as oral but dissects along the tissue planes of the neck.
  - Painless, but may displace tongue and make speech and eating difficult
  - May have painless gradual enlarging neck mass if cervical.
  - In infants may have dysphagia and respiratory distress if large
- Imaging is not needed for oral ranula, CT or MRI is indicated for cervical ranula
- May resolve spontaneously in infants, treated surgically in all others

Cervical or Plunging Ranula

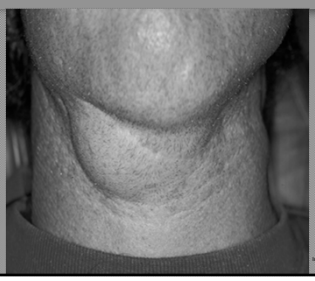

Image source 8

What is this?

1. Abscess
2. Sialiolithiasis
3. Accesory dentition
4. Ranula

Image source 9-12

Sialiolithiasis

- 80% occur in the submandibular gland, most are radio-opaque
- Usually presents as colicky postprandial pain and swelling of the submandibular gland
- Caused by stagnation of saliva, epithelial injury with nidus formation and precipitation of calcium salts
- Plain films will show most stones, sialography will show filling defects. Rountine labs include CBC and electrolytes for infection and dehydration.
- Hydration, compression and massage, and clindamycin if infected are conservative treatments, cannulation and removal of gland are options for refractory or recurrent cases.

What is this?

1. Thrush/Oral Candidiasis
2. Lichen Planus
3. Leukoplakia
4. Squamous Cell Carcinoma

Image source 16 & 17

Leukoplakia

- Persistent sharply defined adherent non-tender white plaques
- Much more common over age 40
- Often associated with ETOH and tobacco use as well as chronic irritants
- Diagnosis of exclusion
- Considered pre-malignant as 6-20% have some dysplasia
- Monitor for change, biopsy anything that changes
- Cryotherapy or laser will resolve, but unknown if changes SCC risk

What is this?

1. Henoch Schönlein Purpura (HSP)
2. Kawasaki disease
3. Injury
4. Erythroplakia

Image source: 13-15

Erythroplakia

- Fiery red patch on the oral mucosa, often with a velvety texture, that can not be attributed to another cause, speckled in appearance if mixed with leukoplakia
- 3:1 men:women, likely due to tobacco and alcohol use
- Floor of mouth, lateral and ventral tongue are more likely spots to develop dysplasia and subsequent SCC
- 90% of erythroplakia represents carcinoma in situ or SCC
- Careful exam for other lesions, brush biopsy, and refer to OMF

What is this?

1. Leukoplakia
2. Thrush/Oral Candidiasis
3. Mucocele
4. Papilloma (HPV)

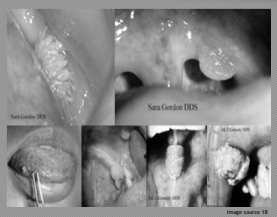

Image source: 18

Papilloma (HPV)

- Humans are the only host for HPV, which infects epithelial cells
- Several genotypes, most of which are tissue specific (skin, mucosa etc)
- The virus is not active until it leaves the basal layer and the cell is differentiated, where viral production occurs near the surface.
- HPV is not cytolytic but is spread as the keratinocyte degrades.
- HPV is hearty and can survive for many months at low temperatures without a host
- In low risk HPV genotypes (6 and 11) the viral DNA is a circular episomal DNA separate from the host cell nucleus. In high risk types (16 and 18) viral DNA is integrated into the host cell DNA.
- The hallmark of high risk HPV proteins is inactivation of host cell tumor suppressor proteins resulting in unregulated host cell proliferation.

Papilloma (HPV)

- HPV causes about 15% of oral/oralpharyngeal cancer
- Type 16 causes the majority, however 6,11,18 and others may also
- Most lesions are treated with excisional biopsy, though topical cidofivir and other medications may be an option.
  - Refer these patients to dentist, ENT or OMF.
- Most do not recur unless immune compromised or re-inoculated
- Nonavalent or quadrivalent vaccine shows great promise in reducing oral cancers as 6,11,16, and 18 cause cervical and oral disease.

What is this?

1. Erythroplakia
2. Leukoplakia
3. Mononeucleosis (EBV)
4. Squamous cell carcinoma (SCC)

Image Source: 19

Squamous Cell Carcinoma

- Most common head and neck cancer, especially in developing world
- Typically a white or red ulcer or lump on the tip or side of the tongue for > 3 weeks.
  - RULE
  - Palpation for induration is important
- Main risk factors are tobacco (20x risk), ETOH (5x), both 50x, HPV lesser risk
- Spread is local to muscle and bone, then metastatic to anterior cervical lymph nodes, and finally to liver and skeleton
- Consider imaging, referral to ENT or OMF for excisional bx/staging

Summary

- Angular Cheilitis
- Oral candidiasis
- Lichen planus
- Mucocele
- Ranula

Summary

- Sailiadenitis/Sailiolithiasis
- Erythroplakia
- Leukoplakia
- Papilloma – HPV
- SCC

Sources

- Kelly JD, DDS, *Personal interview*, 7/15/16
- Lustig LR, Schindler JS. Ear, Nose, and Throat Disorders. In: Papadakis MA, McPhee SJ, Rabow MW editors, *Current Medical Diagnosis and Treatment 2016*, 55th edition, McGraw Hill; 2016. 8:225-233
- Devani A, Barankin B. (2007). Answer: Can you identify this condition? *Canadian Family Physician*, 53(6), 1022-1023.
- Kumar M. Thrush. *emedicine.medscape.com/article/969147*, 4/29/16. Accessed 8/2/16
- Sugerman PB, Porter SR. Oral Lichen Planus. *emedicine.medscape.com/article/1078327*, 9/21/2015. Accessed 8/2/2016
- Flattz CM, Hicks MJ. Mucocele and Ranula. *emedicine.medscape.com/article/1076717*, 5/19/2015. Accessed 8/2/2016
- Yoskovitch A. Submandibular Sialadenitis/Sialadenosis. *emedicine.medscape.com/article/882358*, 5/6/2016. Accessed 8/3/2016
- Andretta, M., Tognaghi, A., Progenikiev, V., & Staffieri, A. (2005). Current opinions in sialolithiasis diagnosis and treatment. *Acta Otorhinolaryngologica Italica*, 25(3), 145-149.
- Gordon SC, Ganatra S, Foong WC, et. al. Viral Infections of the Mouth. *emedicine.medscape.com/article/1079920*, 4/5/2016. Accessed 8/4/2016
- Myers AD. Premalignant Conditions of the Oral Cavity. emedicine.medscape.com/article/1491418, 6/24/2015. Accessed 8/7/2016
- Bishop JA. Leukoplakia and Erythroplakia - Premalignant Squamous Lesions of the Oral Cavity. emedicine.medscape.com/article/1840467, 1/13/2014. Accessed 8/7/2016
- Gearhart PA. Human Papillomavirus. emedicine.medscape.com/article/219110, 1/8/2016. Accessed 8/8/2016
- Scully C. Cancers of the Oral Mucosa. emedicine.medscape.com/article/1075729, 2/12/2016. Accessed 8/8/2016

Image Credits

1. http://www.angularcheilitishelp.org/angular-cheilitis-pictures.php
2. http://www.skinsight.com/adult/oralCandidiasisThrush.htm
3. http://www.aaom.com/oral-lichen-planus
4. https://summerlindermatology.com/otw-portfolio/lichen-planus/
5. http://emedicine.medscape.com/article/1076717-clinical
6. http://www.pcds.org.uk/clinical-guidance/mucocoele
7. http://www.mednet.gr/archives/2011-2/pdf/281.pdf
8. http://emedicine.medscape.com/article/847589-overview
9. http://medifitbiologicals.com/sialolithiasis/
10. http://www.midlevelu.com/blog/case-study-week-sialolithiasis
11. https://www.studyblue.com/notes/note/n/extraoral-and-variants-of-normal-pics-/deck/11092178
12. http://www.ijccnr.com/uploads/7/7/4/6/77464738/_parotid_sialoith_-_a_case_report_and_review_of_literature_.pdf
13. http://emedicine.medscape.com/article/1840467-overview
14. http://www.exodontia.info/Erythroplakia_Erythroplasia.html
15. http://medical-dictionary.thefreedictionary.com/erythroplakia
16. http://emedicine.medscape.com/article/1840467-overview
17. http://dentallecnotes.blogspot.com/2011/07/leukoplakia-is-most-common-premalignant.html
18. http://emedicine.medscape.com/article/1079920-overview
19. http://emedicine.medscape.com/article/1075729-overview
20. http://lafamiliacollado.blogspot.com/
21. http://nmfrogblog.blogspot.com/2008_08_24_archive.html
22. http://emedicine.medscape.com/article/1123213